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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,320	01/15/2004	Bum-Young Myoung	4611-032	5374

22440 7590 10/07/2005

GOTTLIEB RACKMAN & REISMAN PC
270 MADISON AVENUE
8TH FLOOR
NEW YORK, NY 100160601

EXAMINER	
WEBB, GREGORY E	

ART UNIT	PAPER NUMBER
1751	

DATE MAILED: 10/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/758,320	MYOUNG ET AL.	
	Examiner	Art Unit	
	Gregory E. Webb	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01152004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Smith (US6309471). Concerning the brown oxide pretreatment composition, claimed amine and the claimed cleaner adjuvant, Smith teaches the following:

The nonionic surfactants useful herein include but are not limited to

ethoxylated alcohols including myristeth-7 and nonyl phenol ethoxylate, and fatty alcohol ethoxylates and/or propoxylates, alkyl polyglycosides, POE(20) sorbitan monooleate, polyethylene glycol cocoate, propylene oxide/ethylene oxide block polymer, alkanolamines, alkyldimethyl oxides, coconut monoethanolamine, cetyldimethylamine oxide, stearamine oxide, oleamine oxide, cocamidopropylamine dimethy oxide, and so forth.(see col. 4, lines 49-57)

Concerning the preferred amine and the claimed precipitation inhibitor, Smith teaches the following:

Any counter cation, M, can be used on the anionic surfactant. Preferably the counter cation is selected from the group consisting of sodium, potassium, ammonium, monoethanolamine, diethanolamine, and triethanolamine. More preferably the counter cation is ammonium.(see col. 4, lines 44-48)

Concerning the claimed hydroxide and the preferred hydroxide, Smith teaches the following:

The cleaning composition of the present invention preferably has a pH in the range of about 1-14. More preferably, the pH is adjusted to a range of about 7-14, even more preferably the pH is adjusted to a range of about 10-14, even more preferably the pH is adjusted to a range of about 11-14, and most preferably the composition has an adjusted pH of about 12-14. Compounds useful for adjusting the pH include alkali metal hydroxides, alkali metal carbonates, ammonium hydroxide, alkanolamine, mono-, di- and trimethyl amines, and so forth. Surprisingly, the higher the pH is within the preferred range, the quicker the composition effectively removes

iodine stains. Even more surprisingly, the composition effectively removes iodine at a high pH independent of the concentration of salicylic acid or its derivatives.(see col. 4, lines 9-24)

Concerning the claimed antifoaming agent, Smith teaches the following:

The anionic surfactants useful herein include but are not limited to alkyl and alkyl ether sulfates such as ammonium lauryl ether sulfate, sulfated monoglycerides, sulfonate olefins such as sodium alpha olefin sulfonate, alkyl aryl sulfonates such as sodium dodecyl benzene sulfonate, primary or secondary alkane sulfonates, alkyl sulfosuccinates, acyl taurates, methyl acyl taurates, acyl isethionates, alkyl glycerylether sulfonate, sulfonated methyl esters, sulfonated fatty acids, alkyl phosphates, acyl glutamates, acyl sarcosinates, alkyl sulfoacetates, acylated peptides, alkyl ether carboxylates, acyl lactylates, anionic fluorosurfactants, ethoxylated alkyl sulfates, alkyl glyceryl ether sulfonates, fatty acyl glycinates, alpha-sulfonated fatty acids, their salts and/or their esters, alkyl ethoxy carboxylates and mixtures thereof.(see col. 4, lines 28-43)

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Motson, Harold Russell (US20030148905).

Concerning the brown oxide pretreatment composition, claimed hydroxide and the preferred hydroxide, Motson, Harold Russell teaches the following:

[0048] Alkali such as sodium hydroxide or triethanolamine, can be included to maintain an alkaline environment to aid fat removal by saponification. Typical concentrations of are from 1 to 20%, more usually from 1 to 10%, and desirably from 2 to 7%, by weight of the cleaning formulation.

Concerning the copper surface, Motson, Harold Russell teaches the following:

[0051] Corrosion inhibitors can be included to reduce or prevent corrosion particularly on metal substrates such as iron and steels, including stainless, nickel and chrome steels, copper, brasses, bronzes, bronzes, aluminium, silumin and duralumin. Examples include straight or branched chain, particularly C8 to C11, alkanecarboxylic acids and their water soluble, e.g. alkali metal, such as Na or K, or ammonium such as alkanolammonium, salts. Typical concentrations of corrosion inhibitors are from 1 to 10%, more usually from 2 to 10%, and desirably from 2 to 7%, by weight of a concentrated cleaning formulation.

Concerning the claimed amine, preferred amine, claimed cleaner adjuvant and the claimed precipitation inhibitor, Motson, Harold Russell teaches a screen wash formulation containing 0.2-0.5% triethanolamine and a solvent (see paragraph 64).

Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Bakos (US 4,276,186).

Bakos teaches compositions for removing flux containing 50% pyrrolidone, 5% alkanolamine, and a secondary solvent (see claim 1).

Bakos teaches the addition of various hydroxides including the applicant's preferred hydroxides (see claim 9).

Bakos teaches various suitable alkanolamines including the applicant's preferred alkanolamines (see col. 3, lines 24-42).

Bakos teaches these compositions for preparing a surface for imide coating (see col. 5, lines 5-35).

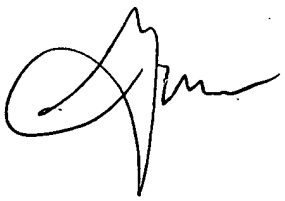
Conclusion

Honda (US 5,977,041) has been cited to demonstrate the state of the art in oxide removal from copper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory E. Webb
Primary Examiner
Art Unit 1751

gew